

**FOOD SCIENCE AND TECHNOLOGY
CAREER DEVELOPMENT EVENT
2009 OBJECTIVE TEST**

1. Starch is a type of _____.
 - a. protein
 - b. lipid
 - c. enzyme
 - d. carbohydrate
2. To manufacture mayonnaise, a quantity of oil is blended with a smaller amount of water and egg yolk to form a _____ emulsion.
 - a. protein-in-oil
 - b. oil-in-protein
 - c. oil-in-water
 - d. water-in-oil
3. The fat soluble vitamins are _____.
 - a. A, B, C, and D
 - b. B, C, D, and K
 - c. A, C, D and K
 - d. A, D, E, and K
4. At sea altitude, pure water freezes at _____.
 - a. 0°F
 - b. 10°C
 - c. 32°C
 - d. 32°F
5. A complex protein molecule that stimulates or speeds up a specific chemical reaction without being used up itself is called _____.
 - a. a substrate
 - b. an enzyme
 - c. a mycelium
 - d. a flagellum
6. The purpose for using a leavening agent such as baking soda or baking powder in cakes and cookies is to provide a source of _____.
 - a. sodium dioxide
 - b. carbon monoxide
 - c. sodium monoxide
 - d. carbon dioxide
7. Lemon juice, which is acidic, would have an approximate pH of _____.
 - a. 3.0
 - b. 5.0
 - c. 7.0
 - d. 9.0

8. Ron had a piece of Canadian bacon pizza, his favorite, left over from the previous night's pizza party. Although cold pizza is a time-honored breakfast food, Ron hesitated to eat it because it had been left all night at room temperature. However, as so often happens, desire won out over caution and he scarfed it down. Two hours later, he experienced nausea and severe vomiting, which lasted a few hours. When he felt better he consulted a food microbiologist friend of his, Hermione, who said, "With such a brief incubation period and primarily upper gastrointestinal signs, you probably had a(n) ..."
- Psychosomatic reaction against eating pizza for breakfast
 - Allergy
 - Intoxication
 - Infection
9. *Listeria monocytogenes* is a bacterium that grows at refrigeration temperatures and is considered to be a _____.
- psychrophile
 - mesophile
 - thermophile
 - refrigophile
10. To produce sauerkraut, cabbage undergoes a _____ process.
- drying
 - fermentation
 - freezing
 - irradiation
11. The microorganisms intentionally added to raw materials to be fermented are called _____.
- natural inoculums
 - natural contamination
 - a starter culture
 - a mother culture
12. *Campylobacter jejuni* is one of the leading causes of foodborne illness in the U.S. People become ill with campylobacteriosis as a result of consuming the cells of *C. jejuni* when eating contaminated food. This is an example of a _____.
- food-borne intoxication
 - food-borne infection
 - food allergy
 - food intolerance
13. A bacteriostatic compound used in soap at a food processing plant will _____ bacteria.
- have no effect on
 - inhibit the growth of
 - enhance the growth of
 - eliminate

14. The green fuzzy growth that can appear on bread that has been stored at room temperature too long, especially under humid conditions, is caused by _____.
- a. bacteria
 - b. yeast
 - c. mold
 - d. viruses
15. Any microorganism that can cause disease is called a _____.
- a. virus
 - b. pathogen
 - c. prion
 - d. parasite
16. A microorganism commonly found in human nasal passages and on the skin that can cause foodborne illness if food becomes contaminated is _____.
- a. *Bacillus cereus*
 - b. *Staphylococcus aureus*
 - c. *Clostridium botulinum*
 - d. *Escherichia coli* O157:H7
17. _____ bacteria are used to make vinegar.
- a. Acetic acid
 - b. Lactic acid
 - c. Propionic acid
 - d. Citric acid
18. An extruder is a piece of equipment commonly used to form _____.
- a. bagels
 - b. crackers
 - c. tortillas
 - d. pasta
19. Canning of food products is a method of _____.
- a. preservation
 - b. fermentation
 - c. pasteurization
 - d. irradiation
20. Milk undergoes a process called _____ that is intended to break down fat globules so they are smaller and more uniform in size.
- a. homogenization
 - b. vaporization
 - c. encapsulation
 - d. emulsification
21. When steam undergoes a phase change to liquid water, _____ occurs.
- a. evaporation
 - b. vaporization
 - c. condensation
 - d. lyophilization

22. The _____ is the length of time required at a specific temperature to destroy 90% of the microorganisms present.
- a. K-value
 - b. F-value
 - c. D-value
 - d. z-value
23. Removing all of the visible dirt, grime, grease, and food particles in a food processing facility is called _____.
- a. sterilizing
 - b. sanitizing
 - c. cleaning
 - d. cleaning and sanitizing
24. Vegetables are blanched before freezing to inactive _____ that catalyze or initiate undesirable changes in vegetable color, texture and flavor.
- a. microorganisms
 - b. prions
 - c. chlorophyll
 - d. enzymes
25. A person who is trained to understand the theory of food systems, including the chemistry, physics and biology of food and food components is a _____.
- a. food scientist
 - b. registered dietician
 - c. nutritionist
 - d. food service manager
26. A retort is a piece of equipment used for _____.
- a. Frying
 - b. Drying
 - c. Canning
 - d. Baking
27. You purchase a food product displayed near a cash register that you had not planned on buying, such as a candy bar, but the candy had a sudden and temporary appeal to you. This type of product would be called _____.
- a. an incentive product
 - b. an impulse item
 - c. a promotional item
 - d. a motivational item
28. A synthetic sweetener made of aspartic acid and phenylalanine that is found in many diet soft drinks is called _____.
- a. aspartame
 - b. sorbitol
 - c. saccharin
 - d. acesulfame K

29. _____, in the form of carotene, is found in large amounts in carrots, sweet potatoes, and apricots.
- Vitamin A
 - Vitamin B₆
 - Vitamin C
 - Vitamin D
30. An example of a food attribute would be the _____.
- flavor of strawberries
 - color of apple juice
 - texture of broccoli florets
 - all of the above
31. You are developing a new food product that requires a rapidly dissolving sugar. Given a choice of using equal amounts of granulated sugar, brown sugar, superfine sugar, or a sugar cube, which type of sugar would dissolve the fastest?
- granulated sugar because of its crystals
 - brown sugar because it contains molasses
 - superfine sugar because it has more surface area per gram of solid
 - sugar cube because of its uniform shape
32. The portion of a label found on food packages that presents nutritional information is called _____.
- Food Facts
 - Nutritional Education
 - Nutrition Facts
 - Daily Values
33. During _____, the interaction of an amino acid and a reducing sugar results in non-enzymatic browning.
- caramelization
 - gelatinization
 - glycolysis
 - the Maillard reaction
34. A compound that has little or no flavor itself but is added to food to assist or boost the primary flavor of the food to which it is added is a _____.
- processing aid
 - humectant
 - stabilizer
 - flavor enhancer
35. Food ingredients that are GRAS, also known as _____, are considered safe for human consumption.
- generally recognized as safe
 - generally research assured safe
 - government recognized as safe
 - government research assured safe

36. _____ is a protein found in milk.
- a. Myosin
 - b. Albumin
 - c. Casein
 - d. Keratin
37. A food contains 11 grams of fat, 6 grams of carbohydrates and 8 grams of protein. That would be equivalent to _____ calories.
- a. 155
 - b. 130
 - c. 140
 - d. 170
38. Water activity, the degree of availability of water in food, is measured on a scale of _____.
- a. 0-14
 - b. 0-100
 - c. 0-1
 - d. 0-10
39. An example of a non-digestible complex carbohydrate is _____.
- a. fructose
 - b. starch
 - c. fiber
 - d. lactose
40. The enzyme added to milk to cause curd formation in cheese is called _____.
- a. amylase
 - b. rennin
 - c. lactase
 - d. lipase
41. The chemical name for table salt is _____.
- a. sodium bicarbonate
 - b. potassium nitrate
 - c. sodium chloride
 - d. sodium bisulfite
42. When proteins begin to break down in protein-rich foods such as meat and milk, the process is called _____.
- a. proteolysis
 - b. lipolysis
 - c. glycolysis
 - d. hydrolysis
43. The red color of a tomato is due to a compound called _____.
- a. beta carotene
 - b. lycopene
 - c. limonene
 - d. carotene

44. _____ is added to meat to produce a cured meat color and flavor, and to serve as an antibotulinal agent.
- a. Sodium erythorbate
 - b. Sodium phosphate
 - c. Sodium chloride
 - d. Sodium nitrite
45. The government agency responsible for ensuring that meat and poultry are safe and wholesome for consumption is the _____.
- a. Food and Drug Administration
 - b. United States Department of Agriculture
 - c. Department of Health and Human Services
 - d. Animal and Plant Health Inspection Service
46. The use of food additives in the U.S. is regulated by the _____.
- a. Food and Drug Administration
 - b. United States Department of Agriculture
 - c. Department of Health and Human Services
 - d. Animal and Plant Health Inspection Service
47. To test a food manufacturing process with batches larger than bench top size, but smaller than full scale industry size, processors will use _____.
- a. mass production
 - b. batch production
 - c. pilot scale production
 - d. prototype production
48. GMP is an acronym for _____ in the food industry.
- a. good methods procedures
 - b. good manufacturing practices
 - c. get more practice
 - d. good manufacturing procedures
49. Food that is dried at too high a temperature during dehydration can become _____ on the outside of the product.
- a. blanched
 - b. lyophilized
 - c. caramelized
 - d. casehardened
50. The presence of a cherry pit in a container of yogurt is an example of a _____ in food.
- a. physical hazard
 - b. biological hazard
 - c. chemical hazard
 - d. toxicological hazard